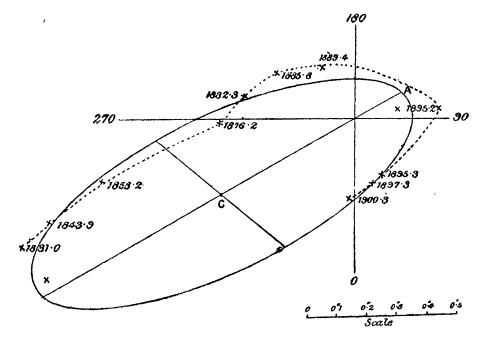
Jan. 1902. Greenwich Observations of Satellite of Neptune. 211



These positions are shown in the figure which is the adopted apparent ellipse, from which the following elements for the true ellipse have been computed:—

<i>τ</i> = 1892.0	ಣ =	109°	$\mathbf{I}2'$
$\rho = 180 \text{ years}$	λ	18	7
$\epsilon = 0.70$	γ	58	9
$a = o'' \cdot 7 I$	$\boldsymbol{\phi}$	42°	88

The measures of H. Struve were received after this paper was written. They uphold the binarity and conclusions here given in the most decided manner.

1901 December 28.

Observations of the Satellite of Neptune from Photographs taken at the Royal Observatory, Greenwich, in 1899-1900.

(Communicated by the Astronomer Royal.)

By inadvertence the publication of these results for the

opposition of 1899-1900 has been delayed till now.

The photographs were taken with the 26-inch refractor of the Thompson equatorial. An occulting shutter immediately in front of the plate has been used to screen the planet during the greater part of the long exposure on the satellite, a series of very short exposures (usually twenty of one second each) being given to

Q

Neptune at regular intervals (usually each minute) by lifting the occulting arm. The orientation was determined usually by means of a pair of short-exposure images of Neptune, the clock being put out of gear for seven seconds between the exposures to give a convenient displacement in R.A. The photographs were measured in reversed positions of the plate by each of two observers. The mean values of position angle and distance as measured are given in the following table, the tabular positions being computed from the data given in the Connaissance des Temps, based on Mr. H. Struve's elements, the eccentricity of the orbit being neglected owing to the uncertainty as to the present position of the periastron.

Positions of Neptune's Satellite measured on Photographs taken with the 26-inch Refractor.

Date.		Ti	I	Position an	gle.	Distance.				
		Exposures.	Observed.	Tabular.	TabObs.	Observed.	Tabular.	TabObs.		
Sept.	ď.	h I 2	m 40	m s. 30 & 15	53.09	51 [°] 95	- i°14	14.37	14.41	+ 0.04
Oct.	10	12	3	30 & 20	42.67	39.57	-3.10	12.81	13.12	+0.31
	12	12	11	30 & 10	261.23	261.88	+ 0.65	16.74	16.26	-o.18
	16	11	40	30 & 10	32.27	32.22	+0.58	12.90	12.46	-0.44
190	ю.									
Jan.		10	2	20 & 10	(80·52)	83.08	(+ 2.26)	•••	•••	•••
	18	8	58	20 & 20	42.34	41.73	-0.91	14.45	13.81	-0.64
	24	10	45	30 & 20	28.55	29.33	+ 0.78	12.35	12.49	+0'14

October 10. Image of planet elongated. January 17. Planet on edge of shutter.

**************************************	, , , , , , ,	Observer.	W.	H. F.	æ,	A. C.	W. B.	တ်	W. B.	'n.	A. C.	. B .	H.	ĸ.	G. B.	A. C., R.	B.	Ħ	H.
r's Satellites,		Mean Solar Time of Observation.	0 I3 58°04	9 25 20.88	10 25 0.03	8 5 54.76	8 5 54.85	8 5 54.57	8 23 59.51	10 42 18.68	11 48 44.94	12 41 47.97	8 45 47.44	9 50 35.54	8 46 48.78	No Occultation	8 52 47.81	12 14 58.90	13 7 24.02
na of Jupite Year 1901.		Moon's Limb.	Dark	:	*	•	•	8	Bright	Dark	4	:	:	*	•	••	:	\mathbf{Bright}	App. Bright
henomer in the	Royal.)	Power.	225	100	225	100	55	225	55	670	120	120	225	225	225		670	225	225
Observations of Occultations of Stars by the Moon and Phenomena of Jupiter's Satellites, made at the Royal Observatory, Greenwich, in the Year 1901. (Communicated by the Astronomer-Royal.)	Communicated by the Astronomer-	Telescope.	Astrographic Equat.	Great Equat. (Corbett)	Astrographic Equat.	Old Altazimuth	Sheepshanks Equat.	Astrographic Equat.	Sheepshanks Equat.	Great Equat.	Sheepshanks Equat.	" "	Astrographic Equat.	"	46 66		Great Equat.	Astrographic Equat.	" "
	<u> </u>	Phenomenon,	Disapp. 68 Orionis	" Lalande 11088	", χ^2 Orionis	" W. B. (2) VI. 1200	"	"	Reapp. "	Disapp. p^2 Leonis	" Piazzi XV. 96	Reapp. Lalande 35497	Disapp. Lalande 30725	" 21 Sagittarii	" Piazzi XVII. 323	" c ^r Capricorni	" k Aquarii	" 29 Arietis	Reapp. "
		Day.	rgor. March 26	April 22	22(a)(b)	23 (a)	23 (a)	23	23	28 (b)	May 31	June 4	29	$\mathbf{July} 28 \ (b)$	Aug. 24 (c)	Oct. 22 (d)	23 (b) (c)	27 (e)	27 (5)